

IN THE CLAIMS:

Please amend Claim 1 as follows. Note that all the claims currently pending in this application, including those not presently being amended, have been reproduced below for the Examiner's convenience.

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1. (Currently Amended) A diffractive optical element, comprising:
a grating structure having ~~at least two~~ a first blazed type grating ~~portions successively~~ portion and a second blazed type grating portion which is arranged ~~along a light traveling direction~~ on a light exit side of the first blazed type grating portion, wherein
in at least one of the first blazed type grating portion ~~of said two~~ blazed type grating portions and the second blazed type grating portion, structures smaller than a used wavelength are arranged in a periodic manner.

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2. (Original) A diffractive optical element according to claim 1, wherein said diffractive optical element is structured such that within an entire region of used wavelengths, diffraction directions are made different from each other, depending upon a polarization direction of a light beam incident on said diffractive optical element, and a diffracted light is concentrated only to one predetermined diffraction order.

3. (Original) A diffractive optical element according to claim 1, wherein said minute periodic structure is constituted by one kind of material, or two kinds of materials, and occupation ratios of the respective materials within one period of said

minute periodic structure are made different from each other along a periodic direction of said grating portion.

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4. (Original) A diffractive optical element according to claim 1,

wherein said diffractive optical element has a step-shaped grating portion.

5. (Previously Amended) A diffractive optical element according to

claim 4, wherein said minute periodic structure of said grating portion is varied along a periodic direction of said grating portion.

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6. (Previously Amended) A diffractive optical element according to

claim 5, wherein said minute periodic structure varied along the periodic direction of said grating portion is varied every step of said step-shaped grating portions.

7. (Previously Amended) A diffractive optical element according to

claim 4, wherein said minute periodic structure of said grating portion is varied in a grating thickness direction.

8. (Previously Amended) A diffractive optical element according to

claim 7, wherein said minute periodic structure varied in the grating thickness direction is varied every step of said step-shaped grating portion.

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9. (Original) A diffractive optical element according to claim 1, wherein said used wavelength range corresponds to a visible light range.

10. (Previously Amended) A polarization converting element, comprising deflecting means provided so that an emergence direction of one of a P-polarized light beam and an S-polarized light beam which has undergone polarization-separation to be diffracted in a diffraction direction different depending on a polarization direction by said diffractive optical element according to claim 2 is made substantially coincident with an emergence direction of the other beam.

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11. (Previously Amended) A polarization converting element, comprising a half-wave plate provided in correspondence to one of a P-polarized light beam and an S-polarized light beam, which has undergone polarization-separation to be diffracted in a direction different depending upon polarization direction, by said diffractive optical element according to claim 2.

12. (Previously Amended) A polarization converting element, comprising deflecting means provided so that an emergence direction of one of a P-polarized light beam and an S-polarized light beam which has undergone polarization-separation to be diffracted in a diffraction direction different depending on a polarization direction by said diffractive optical element according to claim 2 is made substantially coincident with an emergence direction of the other beam and a half-wave plate is provided in correspondence to one of the P-polarized light beam and S-polarized light beam.

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13. (Previously Amended) A polarization converting element according to any one of claims 10 to 12, further comprising an optical member provided so that an incident direction of a light beam on said diffractive optical element is made substantially parallel to an emergence direction thereof.

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14. (Original) A projection type display apparatus, in which a light beam which is emitted from a light source unit and contains an S-polarized light component and a P-polarized light component, is guided using the polarization converting element according to any one of claims 10 to 12 toward modulating means for modulating the light beam on the basis of an image signal and the light beam modulated by said modulating means is projected onto a predetermined surface by a projection optical system.

15. (Original) A projection type display apparatus according to claim 14, wherein said image signal is controlled in response to a signal supplied from an image processing means.
